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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/630,895	08/02/2000	David K. Roberts	PHB 34,371	7980
24737	7590	06/14/2005	EXAMINER	
PHILIPS INTELLECTUAL PROPERTY & STANDARDS			WILLIAMS, LAWRENCE B	
P.O. BOX 3001			ART UNIT	
BRIARCLIFF MANOR, NY 10510			PAPER NUMBER	
			2638	

DATE MAILED: 06/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/630,895

Applicant(s)

ROBERTS, DAVID K.

Examiner

Lawrence B. Williams

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 8-10 is/are rejected.
- 7) ☒ Claim(s) 3-7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1, 8-10 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergstrom et al. (US Patent 4,716,573) in view of Bantz et al. (US Patent 5,394,433).

(1) With regard to claim 1, Bergstrom et al. discloses a method of generating a cyclic sequence of frequencies, the comprising: selecting a number of frequencies in succession from a list of usable frequencies by means of a sequence of indices indicating respective positions in the list, deriving said sequence of indices from a kernel, controlling a frequency generator arrangement to repeatedly generate the succession of frequencies so selected, and updating the list in respect of the frequencies it contains between successive selections of a frequency therefrom, the detail of each updating being dependent upon the part of the succession of frequencies so far selected (col. 2, line 42- col. 3, line 35).

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However Bergstrom et al. does not disclose wherein each updating is such as to result in a list, which contains a respective subset of the frequencies contained in the list from which the first frequency of the succession of frequencies was selected.

However, Bantz et al. discloses a frequency hopping pattern assignment wherein each updating is such as to result in a list, which contains a respective subset of the frequencies contained in the list from which the first frequency of the succession of frequencies was selected (col. 15, line 64-col. 16, line 48; col. 22, lines 10-12). Bantz updates the unused list which now contains a subset of the list held previously.

It would have been obvious to one of ordinary skill in the art at the time of invention to incorporate the teachings of Bantz et al. with the invention of Bergstrom et al. as a method to provide improved frequency hopping pattern assignment and control in radio networks (col. 19, lines 41-61).

(2) With regard to claim 2, Bantz et al. also discloses wherein each updating is such as to result in a list which contains a respective subset of the frequencies contained in the list from which the first frequency of the succession of frequencies was selected, wherein each updating is such as to result in a list from which is excluded any frequency which differs from the frequency last selected by less than a predetermined amount, and wherein the updating immediately prior to the selection of the last frequency of the succession is such as to result in a list from which is also excluded any frequency which differs from the frequency first selected by less than said predetermined amount (claim 12).

(3) With regard to claim 8, claim 8 inherits the limitations of claim 1 as claim 8 only discloses an apparatus for implementing the method of claim 1. Furthermore Bergstrom et al. discloses an apparatus for the method in Fig. 4.

(4) With regard to claim 9, Bergstrom et al. also discloses a radio communication system, which employs frequency hop sequences generated by the method as claimed in claim 1 (abstract).

(5) With regard to claim 10, Bergstrom et al. also discloses a radio communication system which includes apparatus as claimed in claim 8 for generating a frequency hop sequence (col. 1, lines 6-11).

Drawings

4. This application has been filed with informal drawings, which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

Allowable Subject Matter

5. Claims 3-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter: The instant application discloses a method of generating a cyclic sequence of frequencies. The prior art teaches methods of generating cyclic frequencies but fails to teach a method wherein "each updating which occurs when $m \leq l \leq (L - m)$ is such as to result in a list from which is also excluded any frequency which differs from any of the $(m - 1)$ frequencies most recently selected by less than said predetermined amount" or wherein "each updating which occurs when

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$m \leq l \leq (L - m)$ is such as to result in a list from which is excluded all frequencies other than those which differ by less than a predetermined amount from the least number of the $(m - 1)$ frequencies most recently selected” as disclosed in claims 3 and 4, respectively. Nor does the prior art teach a method wherein “the value of each index i of the sequence of indices is given by

$$i = |f(ID)| \text{ modulo } W$$

where ID is said kernel and W is the current length of the list” as disclosed in claim 5.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a.) Ohashi et al discloses in US Patent 6,240,126 B1 Wireless Communication Device.

b.) Gendel et al. discloses in US Patent 6,115,408 Automatic Transmission Power Level Control Method In A Frequency Hopping Communication System.

c.) Gendel et al. discloses in US Patent 6,115,407 Frequency Hopping Communication Method And apparatus For Modifying Frequency Hopping Sequence In Accordance With Counted Errors.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

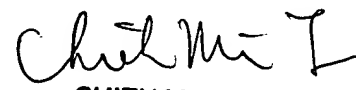
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence B Williams whose telephone number is 571-272-3037. The examiner can normally be reached on Monday-Friday (8:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 571-272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lawrence B. Williams

lbw
June 8, 2005


CHIEH M. FAN
PRIMARY EXAMINER